

WHAT IS CLAIMED:

1. An electronic settlement system using a keyboard having multiple card identification and charging functions for on-line electronic commerce via an electronic commerce server which provides sales information of an item and a financial settlement institute server which conducts
5 financial settlements, the electronic settlement system comprising:

an electronic cash management server for charging a smart card and an RF card through a fund transfer or a cash service under an interlock with the financial settlement institute server;

10 a keyboard adapted to read the information from a magnetic card through a magnetic card identification section formed on one side and read/write the information from a smart card and an RF card through a smart card identification/charging section and an RF card identification/charging section formed on another side; and

a user PC for receiving the card information from the keyboard via a USB port and then transmitting the card information to the electronic cash management server or the financial settlement institute server in accordance with a control program and for transmitting the data
15 from the electronic cash management server or the financial settlement institute server to the keyboard.

2. The electronic settlement system according to claim 1, wherein the keyboard comprises:

20 a magnetic card identification section to read a magnetic card;

a smart card identification/charging section to read/write a smart card;

an RF card identification/charging section to read/write an RF card;

a control unit to transform the data read by the magnetic card identification section, the smart card identification/charging section or the RF card identification/charging section into a
25 machine language code for transmission and to interpret a machine language code received from the user PC for applying a control signal; and

a USB up/down stream port to transmit the card information, which has been

transformed into a machine language code by the control unit, to the user PC and transmit the data received via the user PC from the electronic cash management server or the financial settlement server to the control unit.

5 3. The electronic settlement system according to claim 1, wherein the keyboard further comprises a receipt printer output section to output the service particulars of the magnetic card settled via the electronic commerce server under an interlock with the control unit.

10 4. The electronic settlement system according to claim 3, wherein the receipt printer output section is connected to an external printer for receipt printing via an output port formed on a side of the keyboard and a connection cable.

15 5. The electronic settlement system according to claim 4, wherein the external printer for receipt printing further comprises a separate input port for a releasable interlock with the output port of the keyboard.

20 6. The electronic settlement system according to claim 4, wherein the receipt printer output section can output the service particulars of the magnetic card under an interlock with an internal printer for receipt printing housed within the keyboard.

25 7. The electronic settlement system according to claim 1, wherein the user PC comprises:

 a transmission/reception section interlocked with the electronic cash management server, the financial settlement institute server and the electronic commerce server via a web server;

 a microprocessor having a decoder and an encoder to interpret the machine language code received under an interlock with the control unit of the keyboard for providing the

transmission/reception section with a control signal and transform the data received from the electronic cash management server, the financial settlement institute server and the electronic commerce server via the transmission/reception server into a machine language code for transmitting it to the control unit of the keyboard;

5 a memory unit for storing a control program to write the smart card and the RF card in a fund transfer or a magnetic card cash service type according to the control of the microprocessor under an interlock with the electronic cash management server; and

 a USB port for transmission/reception of data under an interlock with the USB up/down stream port of the keyboard according to the control of the microprocessor.

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8. A method for an electronic settlement using a keyboard having multiple card identification and charging functions for on-line electronic commerce via an electronic commerce server which provides sales information of an item and a financial settlement institute server which conducts financial settlement, the method comprising:

15 a card-charging step for a user to charge a smart card or an RF card using the keyboard through an access to an electronic cash management server via a web server interlocked with a user PC;

 a settlement approval step for the user to access the electronic commerce server via a web server through a line separate from the electronic cash management server for choosing an
20 item and a settlement type and scan the charged card according to the chosen settlement type using the keyboard for getting a settlement approval; and

 a settlement confirmation step for the user to access the financial settlement institute server through a line separate from the electronic cash management server for an inquiry on the service particulars or the balance of the card and to get confirmation of the settlement.

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9. The method for an electronic settlement according to claim 8, wherein the card-charging step comprises the steps of:

getting a user authentication through an access to the electronic cash management server using the user PC;

choosing a card-charging type;

5 scanning the smart card or the RF card and transmitting the card information to the financial settlement institute server if a fund transfer is chosen as the card-charging type;

scanning the magnetic card and transmitting the card information to the financial settlement institute server if a cash service is chosen as the card-charging type;

requesting a fund transfer or a cash service in accordance the amount of money inputted by the user; and

10 charging the smart card or the RF card with the amount of money if the fund transfer or the cash service is approved.

10. The method for an electronic settlement according to claim 8, wherein the settlement approval step comprises the steps of:

15 choosing an item and a settlement type through an access to the electronic commerce server using the user PC;

scanning the card according to chosen settlement type and transmitting the card information to the financial settlement institute server; and

requesting a settlement approval to the card and confirming the settlement approval.

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11. The method for an electronic settlement according to claim 8, wherein the settlement confirmation step comprises the steps of:

getting a user authentication by scanning the card after an access to the financial settlement institute server using the user PC;

25 inquiring service particulars or a balance of the card in relation to the card-charging type; and

confirming establishment of the settlement by the card after the inquiry and outputting a settlement confirmation receipt using a printer for receipt printing interlocked with the keyboard.